

FEILAN JIANG

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EXPERIENCE

ML and Computer Vision Intern

Microsoft Corporation

📅 May 2020 – Aug. 2020

📍 Redmond, WA (Remote Internship)

- Automated a visual manufacturing test using KNN and a custom distance metric, improving yield by up to 20% over the existing classical-CV solution

Infrastructure Engineering Intern

Uber ATG

📅 Sep. 2019 – Dec. 2019

📍 San Francisco, CA

- Developed an AWS pipeline for storing and searching thousands of calibration files, helping to enable one-touch calibration for any LiDAR test sensor

Localization and Mapping Developer

Avidbots Corp.

📅 Jan. 2019 – Apr. 2019

📍 Kitchener, ON

- Created an automated ROS LiDAR calibration system used to prepare dozens of floor-scrubbing robots for the company's clients
- Prototyped a custom visual SLAM algorithm to assist with cleaning-plan start-pose correction and map symmetry-breaking

ADAS Software Developer

BlackBerry QNX

📅 May 2018 – Aug. 2018

📍 Ottawa, ON

- Enhanced a LiDAR driver with a point-cloud merging feature that shortens each library usage by up to 100 lines of C++ code
- Created and deployed an object-detection demo to showcase the ADAS stack's point-cloud downsampling and segmentation capabilities

PROJECTS & ACTIVITIES

Future Undergraduate Student Researcher 🤖

- Research areas are perception and navigation in the self-driving space

SAE AutoDrive Challenge Team Member 🤖

- Implemented a traditional computer vision-based lane detection system in OpenCV and ROS

Autonomous Mobile Robot 🤖

- Developing a mobile robot that is controlled by hand gestures and uses the ROS navigation stack
- Currently experimenting with navigation technologies such as path-planning, SLAM, and obstacle avoidance

SKILLS

ROS PCL OpenCV

TF/Keras PyTorch

AWS Docker

Kubernetes

Boost NumPy

Matplotlib SQL

OpenGL

Git Bash Scripting

SVN GDB Valgrind

Ubuntu QNX Neutrino

SOLIDWORKS AutoCAD

3D Printing Soldering

Machining

LANGUAGES

C++ ~4 Years

Python ~3.5 Years

C ~2 Years

JavaScript ~1.5 Years

EDUCATION

BASc Mechatronics Eng.

University of Waterloo

📅 Sep. 2016 – Apr. 2021

INTERESTS

Fitness PC Building

Cooking Music Lover

Sim Racing Reading